Amendment and Response

Serial No.: 10/643,748 Confirmation No.: 4133 Filed: 19 August 2003

For: DENTAL ARTICLE FORMS AND METHODS

## Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the aboveidentified application:

- 1. (Currently Amended) A dental article form comprising an organic composition in the form of a self-supporting structure having a first shape and sufficient malleability to be formed into a second shape, wherein the organic composition comprises a surfactant system mixed therein, and wherein the dental article form comprises a reservoir that is capable of being filled with one or more hardenable dental materials and removed after at least partially hardening the dental material to form a dental article.
- 2. (Original) The dental article form of claim 1 wherein the organic composition is curable.
- 3. (Original) The dental article form of claim 2 wherein the curable organic composition comprises an initiator system and a resin system comprising at least one ethylenically unsaturated component.
- 4. (Original) The dental article form of claim 1 wherein the organic composition is noncurable.
- 5. (Original) The dental article form of claim 4 wherein the noncurable organic composition comprises a noncurable polymer selected from the group consisting of a polycaprolactone, a polyvinylacetate, an ethylene-vinyl acetate copolymer, a polyethylene glycol, a wax, and mixtures thereof.
- 6. (Original) The dental article form of claim 1 wherein the organic composition comprises a filler system.

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7. (Original) The dental article form of claim 6 wherein the filler system comprises fibers,

particulate filler, or mixtures thereof.

8. (Original) The dental article form of claim 6 wherein the filler system comprises an

inorganic material comprising nanoscopic particles.

9. (Original) The dental article form of claim 8 wherein the inorganic material comprises

surface hydroxyl groups.

10. (Canceled)

11. (Original) The dental article form of claim 1 which is a form for a dental article selected

from the group consisting of a crown, an inlay, an onlay, a bridge, an orthodontic appliance, a

maxillofacial prosthesis, and a tooth splint.

12. (Currently Amended) The dental article form of claim 1 wherein the reservoir containing

contains the one or more hardenable dental materials.

13. (Original) The dental article form of claim 1 which is in packaging.

14. (Original) The dental article form of claim 13 wherein the packaging is light-blocking

packaging.

15. (Original) The dental article form of claim 1 comprising one or more of the following

features: a handle attached to the dental article form at a location removed from the base of the

dental article form; a vented handle through which excess amounts of hardenable dental material

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can pass during placement of the dental article form; and one or more lines of weakness that may be separated to remove the dental article form from dental material after placement of the dental article form.

- 16. (Currently Amended) A dental article form comprising a noncurable organic composition in the form of a self-supporting structure having a first shape and sufficient malleability to be formed into a second shape, wherein the organic composition comprises a surfactant system mixed therein, and wherein the dental article form comprises a reservoir that is suitable for being filled with one or more hardenable dental materials.
- 17. (Original) The dental article form of claim 16 wherein the noncurable organic composition comprises a noncurable polymer selected from the group consisting of a polycaprolactone, a polyvinylacetate, an ethylene-vinyl acetate copolymer, a polyethylene glycol, a wax, and mixtures thereof.
- 18. (Original) The dental article form of claim 16 wherein the noncurable organic composition comprises a filler system.
- 19. (Original) The dental article form of claim 18 wherein the filler system comprises fibers, particulate filler, or mixtures thereof.
- 20. (Original) The dental article form of claim 18 wherein the filler system comprises an inorganic material comprising nanoscopic particles.
- 21. (Original) The dental article form of claim 20 wherein the inorganic material comprises surface hydroxyl groups.

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22. (Original) The dental article form of claim 16 which is a form for a dental article selected from the group consisting of a crown, an inlay, an onlay, a bridge, an orthodontic appliance, a maxillofacial prosthesis, and a tooth splint.

- 23. (Original) The dental article form of claim 16 comprising a reservoir containing one or more hardenable dental materials.
- 24. (Original) The dental article form of claim 16 which is nonremovable.
- 25. (Original) The dental article form of claim 16 which is in packaging.
- 26. (Original) The dental article form of claim 16 which is removable after at least partially hardening the dental material to form a dental article.
- 27. (Original) The dental article form of claim 16 comprising one or more of the following features: a handle attached to the dental article form at a location removed from the base of the dental article form; a vented handle through which excess amounts of hardenable dental material can pass during placement of the dental article form; and one or more lines of weakness that may be separated to remove the dental article form from dental material after placement of the dental article form.
- 28. (Currently Amended) A dental article form comprising an organic composition free of added filler in the form of a self-supporting structure having a first shape and sufficient malleability to be formed into a second shape, wherein the organic composition comprises a surfactant system mixed therein, and wherein the dental article form comprises a reservoir that is suitable for being filled with one or more hardenable dental materials.

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29. (Original) The dental article form of claim 28 wherein the organic composition free of added filler is curable.

30. (Original) The dental article form of claim 29 wherein the curable organic composition comprises an initiator system and a resin system comprising at least one ethylenically unsaturated component.

- 31. (Original) The dental article form of claim 28 wherein the organic composition free of added filler is noncurable.
- 32. (Original) The dental article form of claim 30 wherein the noncurable organic composition comprises a noncurable polymer selected from the group consisting of a polycaprolactone, a polyvinylacetate, an ethylene-vinyl acetate copolymer, a polyethylene glycol, a wax, and mixtures thereof.
- 33. (Original) The dental article form of claim 28 which is nonremovable.
- 34. (Currently Amended) The dental article form of claim 28 comprising a wherein the reservoir containing contains one or more hardenable dental materials.
- 35. (Original) The dental article form of claim 28 which is a form for a dental article selected from the group consisting of a crown, an inlay, an onlay, a bridge, an orthodontic appliance, a maxillofacial prosthesis, and a tooth splint.
- 36. (Original) The dental article form of claim 28 which is in packaging.

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37. (Original) The dental article form of claim 28 which is removable after hardening the dental material to form a dental article.

- 38. (Original) The dental article form of claim 28 comprising one or more of the following features: a handle attached to the dental article form at a location removed from the base of the dental article form; a vented handle through which excess amounts of hardenable dental material can pass during placement of the dental article form; and one or more lines of weakness that may be separated to remove the dental article form from dental material after placement of the dental article form.
- 39. (Currently Amended) A method of preparing a dental article, the method comprising: selecting a dental article form having a reservoir and comprising an organic composition in the form of a self-supporting structure having a first shape and sufficient malleability to be formed into a second shape, wherein the organic composition comprises a surfactant system mixed therein;

filling the reservoir with one or more hardenable dental materials;

placing the dental article form filled with one or more hardenable dental materials on a subject's tooth structure;

at least partially hardening the hardenable material to form the dental article; optionally customizing the dental article outside of the subject's mouth; cementing the dental article to the subject's tooth structure; and optionally removing the dental article form from the article;

wherein the dental article form is reshaped while in the subject's mouth before or after filling the reservoir with the hardenable dental material.

## 40. (Canceled)

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- 41. (Canceled)
- 42. (Currently Amended) The method of claim [[41]] <u>39</u> wherein the organic composition is curable.
- 43. (Original) The method of claim 42 wherein the curable organic composition comprises an initiator system and a resin system comprising at least one ethylenically unsaturated component.
- 44. (Currently Amended) The method of claim [[41]] <u>39</u> wherein the organic composition is noncurable.